

Innovative Development of College Physical Education under the Background of Developing Students' Core Literacy

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Abstract: This article expounds the connotation and composition of core literacy, analyzes the present situation and shortcomings of physical education (PE) teaching, and then puts forward the purpose and problem of research-how to cultivate students' core literacy through innovative PE teaching. Through in-depth analysis of the internal relationship between core literacy and PE teaching, this article makes clear the unique value of PE teaching in cultivating students' core literacy. Furthermore, combined with the reality of PE teaching, some specific strategies are put forward, such as innovation of instructional content, innovation of instructional methods and modes, and reconstruction of assessment system. By implementing these innovative strategies, PE in universities can effectively improve students' sports skills and physical fitness, and at the same time, it can promote the comprehensive development students' core literacy in many aspects such as emotional attitude, values, innovative thinking and social participation. The above findings provide powerful theoretical support and practical guidance for the reform of PE in universities.

1. Introduction

As the core concept in the field of education in the 21st century, core literacy emphasizes the essential key abilities and qualities of individuals in adapting to future social life, solving practical problems and realizing personal value and development [1]. It not only covers traditional knowledge and skills, but also emphasizes emotional attitude, values, innovative thinking, teamwork and cross-cultural communication [2]. The composition of core literacy includes cultural foundation, independent development and social participation, and each field is subdivided into several specific literacy [3]. For example: humanistic heritage, scientific spirit, learning to learn, healthy life, responsibility, practical innovation and so on. These qualities are interrelated and mutually promoted, which together constitute the cornerstone of individual all-round development and are the important orientation and goal of educational modernization [4].

At present, PE in universities plays an important role in promoting students' physical and mental health and cultivating sports spirit. However, in the face of the new requirements of cultivating core literacy, its instructional mode, content and methods show some limitations [5]. On the one hand, PE often focuses on imparting sports skills and improving physical fitness, while ignoring the cultivation of students' emotional attitudes, values and interdisciplinary ability [6]. On the other hand, the instructional content is single, lacking innovation and modernity, and it is difficult to meet the diverse needs and interests of students [7]. The assessment system pays too much attention to the result orientation and ignores the assessment of students' learning process and the development of core literacy. These present situations urge us to reflect on and seek innovative ways of PE teaching in order to better serve the comprehensive development students' core literacy.

In view of the importance of core literacy in the field of education and the challenges faced by university PE, this study aims to explore innovative strategies and practical paths of university PE under the background of core literacy. The research will deeply analyze the internal relationship between core literacy and PE teaching, and make clear the unique value and role of PE teaching in cultivating students' core literacy. In view of the problems existing in current PE teaching, this article puts forward concrete and feasible innovative schemes, including the expansion and renewal

of instructional content, the innovation of instructional methods and modes, and the reconstruction of assessment system. Through this study, it is expected to provide theoretical support and practical guidance for the reform of PE in universities, thus promoting the comprehensive development students' core literacy and contributing to the cultivation of high-quality talents with the spirit of the times and international vision.

2. Theoretical basis of developing students' core literacy and PE teaching requirements

2.1. The integration of core literacy and higher education

Core literacy is the core concept of educational reform in the new era, and its connotation and requirements have a profound impact on all aspects of higher education. In the stage of higher education, core literacy is not only a comprehensive requirement for students' knowledge, skills, attitudes and values, but also an important standard to measure the quality of education. Higher education institutions need to integrate the cultivation of core literacy into curriculum design, instructional methods, practical activities and assessment system, so as to ensure that students can achieve all-round development in many dimensions such as body and mind, morality and social participation while studying professionally. This integration not only improves the integrity and systematicness of education, but also lays a solid foundation for students' lifelong learning and future social adaptation.

2.2. The core literacy cultivation function of PE teaching

As an important part of higher education, PE plays a unique and irreplaceable role in cultivating students' core literacy [8]. Through sports activities, students can not only strengthen their physique and improve their sports skills, but also learn to communicate, cooperate and lead in teamwork, and cultivate a sense of responsibility and collective honor. Competition and challenges in sports competitions can train students' ability to resist pressure, make decisions and innovate thinking, while the inheritance of sports spirit can stimulate students' positive and enterprising spirit. Therefore, PE teaching is an important way to cultivate students' core literacy, which is of great significance to promote students' all-round development and form a sound personality.

2.3. New requirements of PE teaching based on core literacy

Facing the new requirements of cultivating core literacy, PE teaching must be reformed and innovated accordingly. The instructional content should be more diversified and modernized, covering not only traditional sports, but also new sports activities and international popular projects to meet the diverse needs and interests of students [9]. Teaching methods should pay attention to students' subjectivity and participation, and let students learn in practice and grow through experience through situational teaching and project-based learning. The assessment system should change from a single performance assessment to a comprehensive assessment, paying attention to students' learning process, ability development and the achievement of core literacy. Through these new requirements, PE teaching will better serve the cultivation of students' core literacy and contribute to the cultivation of socialist builders and successors with comprehensive development morality, intelligence, physique and beauty.

3. Innovation strategy and practice of PE teaching

3.1. Innovation of instructional content

On the road of innovation in PE teaching, the innovation of instructional content is the first link. Traditional PE teaching is limited to fixed sports events and skill training, and it is difficult to meet the growing diversified needs of students. Therefore, innovative instructional content has become the key to enhance the attractiveness of PE teaching. Universities should introduce more diversified sports (as shown in Figure 1) to enrich the selectivity of PE courses and stimulate students' interest in learning.

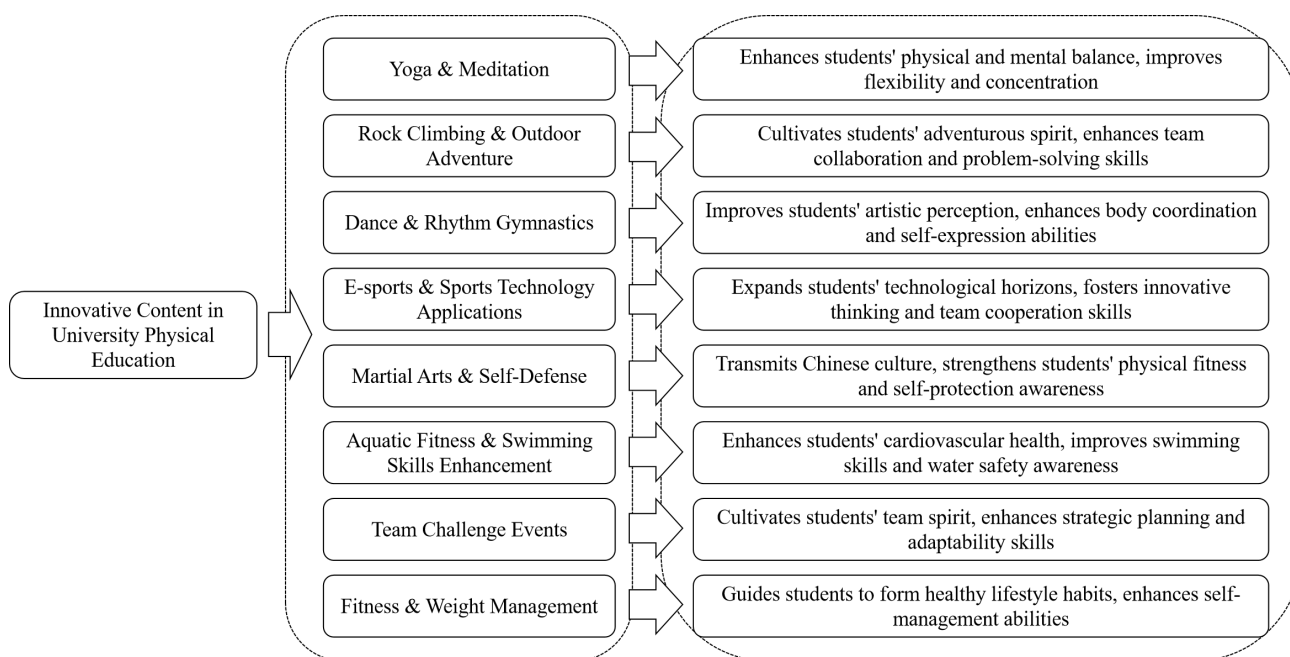


Figure 1 Innovative Content in University PE

Universities should combine PE with health education, psychological adjustment, life skills training and other contents according to the characteristics of the times and social needs, so that PE teaching is not limited to physical exercise, but also becomes a powerful support for students' all-round development. By constantly updating and optimizing the instructional content, university PE teaching will better serve the cultivation of students' core literacy.

3.2. Innovation of instructional methods and modes

The innovation of instructional methods and modes is the core of PE teaching innovation in universities. The traditional instructional mode based on lectures and demonstrations has been difficult to meet the needs of modern PE. Universities should actively explore and practice student-centered instructional methods, such as flipping the classroom, group cooperative inquiry, project-based learning, etc., so that students can learn sports knowledge and improve their sports skills through active participation and practice. Universities can also use modern information technology to create an immersive PE teaching environment and enhance students' learning experience and teaching effect. Through these innovations, PE teaching will be more lively and interesting, and students' participation and learning effect will be effectively improved.

3.3. Reconstruction of assessment system

The reconstruction of assessment system is an indispensable part of PE teaching innovation in universities. The traditional PE teaching assessment focuses on the mastery of sports skills and the improvement of physical fitness level, ignoring the comprehensive assessment of students' core literacy development. In order to more accurately reflect the achievement of students' PE learning achievements and core literacy, universities should build a diversified assessment system, as shown in Table 1.

Table 1 shows the framework of diversified assessment system of PE teaching, aiming at comprehensively evaluating students' PE learning achievements and core literacy achievement. By combining sports skills, physical fitness, health knowledge, psychological quality, social adaptability, innovative thinking and practice and lifelong sports awareness, various assessment methods are adopted to promote students' all-round development and cultivate their core literacy. By reconstructing the assessment system, PE in universities will pay more attention to the comprehensive development students and provide a strong guarantee for cultivating high-quality talents with core literacy.

Table 1 Diversified Assessment System for PE in Universities

Assessment Dimension	Specific Indicators	Assessment Methods
Mastery of Motor Skills	Accuracy of Technical Movements, Skill Proficiency, Understanding of Sports Rules	Practical Tests, Skill Demonstrations, Video Analysis
Improvement in Physical Fitness	Speed, Strength, Endurance, Flexibility, Coordination, and Other Physical Indicators	Physical Fitness Tests, Athletic Performance Assessments
Understanding of Health Knowledge	Mastery of Sports Health Theory, Injury Prevention, Nutrition and Health	Theoretical Exams, Participation in Health Lectures, Reports
Cultivation of Psychological Qualities	Teamwork, Stress Resistance, Self-confidence, Persistence	Team Project Performance, Psychological Tests, Self-reflection
Social Adaptation Abilities	Leadership, Communication Skills, Rule Adherence, Sense of Social Responsibility	Group Activity Performance, Participation in Social Services, Assessments
Innovative Thinking and Practice	Planning of Sports Activities, Exploration of New Skills, Application of Sports Technology	Innovative Project Design, Practice Reports, Presentations
Awareness of Lifelong Physical Activity	Development of Exercise Habits, Self-designed Exercise Plans, Cultivation of Interest in Sports	Surveys, Daily Exercise Records, Interviews

4. Implementation challenges and countermeasures

In the process of implementing the innovative strategy of PE teaching, it will face many challenges. Table 2 summarizes the challenges faced in the implementation of innovative strategies in university PE teaching, covering concepts, teachers, resources and other aspects.

Table 2 Challenges Faced in Implementing Innovative Strategies for University PE

Challenge Category	Detailed Description
Traditional Mindset Constraints	Both teachers and students may still adhere to traditional PE concepts, making it difficult to quickly accept and adapt to new instructional methods and assessment systems.
Inadequate Teaching Staff	There may be a shortage of PE teachers with innovative teaching abilities and experience in cultivating core competencies, hindering the effective implementation of new teaching strategies.
Limited Teaching Resources	Insufficient teaching resources such as sports facilities, equipment, and venues may restrict the development of innovative teaching activities.
Low Student Engagement	Students may lack interest or motivation in new instructional methods, resulting in low participation and affecting teaching effectiveness.
Difficulty in Constructing Assessment Systems	Constructing a diversified and comprehensive assessment system requires time and effort, and may face issues such as inconsistent assessment standards and complex operations.
Challenges in Interdisciplinary Integration	Integrating PE with other subjects (e.g., health science, psychology) poses difficulties, requiring interdisciplinary cooperation and coordination.
Obstacles in Technology Integration and Application	Incorporating modern technology (e.g., smart wearable devices, virtual reality) into PE may face technical challenges and application costs.
Insufficient Policy and Financial Support	Innovative PE in colleges may lack adequate policy support and funding, affecting the sustainability and depth of the innovation strategy.
Poor Home-School Cooperation and Communication	Parents may have limited understanding and support for PE innovation, and home-school communication mechanisms may be inadequate, impacting the promotion and implementation of the innovation strategy.
Lack of Continuous Improvement and Feedback Mechanisms	The absence of effective continuous improvement mechanisms and feedback channels may make it difficult to promptly identify issues, adjust strategies, and optimize teaching effectiveness.

In view of the above challenges, this article puts forward the following countermeasures and suggestions.

(1) Universities should strengthen the training of PE teachers, organize teachers to participate in various seminars, academic conferences and practical activities, and enhance their teaching ability and innovative consciousness.

(2) Universities should increase capital investment in PE, improve the conditions of stadiums

and facilities, and purchase advanced teaching equipment. Furthermore, actively explore school-enterprise cooperation, school-land cooperation and other modes, and strive for more external resources support.

(3) Universities should also strengthen publicity and education and change the traditional concept of PE. By holding lectures, seminars and other activities, teachers and students are popularized the importance of core literacy and PE teaching innovation, and their enthusiasm and initiative in participating in the reform are stimulated.

5. Conclusions

Through in-depth discussion on the innovation of PE in universities under the background of core literacy, this article fully reveals the important role of PE in cultivating students' all-round development and improving core literacy. It is found that by innovating instructional content, instructional methods and models and reconstructing assessment system, university PE teaching can enhance students' physique and skills, and effectively promote their emotional attitude, values, innovative thinking and social participation. This conclusion emphasizes the necessity and urgency of PE reform under the background of core literacy, and points out the direction for the future development of PE in universities.

The value of PE teaching in cultivating students' core literacy and promoting social progress can not be ignored. Future research and practice should continue to deepen the innovation of PE teaching and contribute to cultivating high-quality talents with the spirit of the times and international vision.

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